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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/691,811 | 10/23/2003 | Jean-Pierre Dath | F-716DIV (31223/00014) | 6352 |
| 25264 | 7590 | 07/20/2005 | EXAMINER | |
| FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412 | | | JOHNSON, CHRISTINA ANN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1725 | |
| DATE MAILED: 07/20/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,811

Applicant(s)

DATH ET AL.

Examiner

Christina Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 18-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/206,210.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/29/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/04871.

WO 97/04871 discloses a process for treating a zeolite to improve its butene selectivity in catalytic cracking (page 1, lines 1-5). Suitable zeolites include ZSM-5 (page 3, lines 15-20). It is taught that the starting zeolite preferably have a silica to alumina molar ratio of less than about 200:1 (page 3, lines 30-35). The treatment includes a steam treatment followed by acid treatment (page 3, lines 30-35). The steam treatment is conducted at elevated temperatures in the range of 425-870 degrees C and at a water partial pressure of 13-200 kPa (page 4, lines 1-10). The steaming is carried out for a period in the range of from 0.5-12 hours (page 4, lines 5-10). Following steaming the zeolite is contacted with an acidic solution, including solutions of organic acids such as formic acid, oxalic acid, trichloroacetic acid, and trifluoroacetic acid (page 4, lines 10-20). The zeolite may be formulated with a binder material (page 5).

The reference does not disclose the silica to alumina molar ratio of the treated zeolite. However, the reference teaches that the treatment removes alumina from the zeolite framework (page 9, lines 40-45). It is the position of the examiner that because

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the reference details the use of the same steaming/acid treatment under the same conditions as the instant claims, the extent of dealumination would inherently be the same. When the examiner has reason to believe that the functional language asserted to be critical for establishing novelty in claimed subject matter may in fact be an inherent characteristic of the prior art, the burden of proof is shifted to Applicants to prove that the subject matter shown in the prior art does not possess the characteristics relied upon. In re Fitzgerald et al. 205 USPQ 594.

As each and every element of the claimed invention is taught in the prior art as recited above, the claims are anticipated by WO 97/04871.

3. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 108 611.

EP 0 108 611 discloses a process for the production of ultra-pure, highly crystalline porous silicas from crystalline aluminosilicates which have a silica to alumina mole rate of at least 2:1, preferably from 10-300 (page 2, lines 10-20). The examples detail the use of an MFI zeolite to produce silicalite. It is taught that the dealumination process comprises a steaming step followed by a washing step with a dilute acid or chelating agent (page 4, lines 24-26). The steaming step is carried out by passing a gaseous stream containing from 1-100% steam over the aluminosilicate at a temperature from 400-750 degrees C for a duration of 5 minutes - 60 days (page 4, lines 26-30). The pressure of the steaming step is from 0.1 to 10 bar (page 4, lines 33-35). The washing step is conducted in the presence of one or more agents selected

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from ammonium compounds, acids and a chelating agents, such as EDTA, citric acid, and ammonium acid citrate (page 5, lines 20-35).

As each and every element of the claimed invention is taught in the prior art as recited above, the claims are anticipated by EP 0 108 611.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/04871 as applied above for claims 1-8 and 18 and further in view of Apelian et al.

The teachings of the WO reference as as described above for claims 1-8 and 18.

The difference between the reference and the claims is that the reference does not disclose that the zeolite is combined with a binder prior to the steaming step.

Apelian et al. (US 5,242,676) discloses a process for producing a dealuminated zeolite, including dealuminated ZSM-5. The reference teaches that the zeolite may be combined with a binder prior to or following dealumination (column 8, lines 35-63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method taught by the WO reference in light of the teachings of Apelian et al. Apelian et al. teaches that combining the zeolite with a binder may occur prior to or after the dealumination steps, suggesting that either

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alternative are equivalent. Therefore, it would have been obvious to one of ordinary skill to choose any equivalent method of combining the zeolite with a binder, with a reasonable expectation of success from the combination.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No.6,150,294.

Although the conflicting claims are not identical, they are not patentably distinct from each other.

US 6,150,294 claims a process for producing a dealuminated MFI type zeolite. Refer to claims 1-10. The instant claims are encompassed by those of US 6,150,294.

Conclusion


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Johnson whose telephone number is (571) 272-1176. The examiner can normally be reached on Monday-Friday, 7:30-5, with Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Christina Johnson
Patent Examiner
Art Unit 1725
7/19/05

CAJ
July 19, 2005